						umber: W9127N-05-C-0012		
Columbia River Ch	<u>annel Impr</u>	<u>ovemen</u>	<u>t</u> - RM 20+	-10 to 21+20				
Date: 11/10/20	05							
Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)	
Load Number	DR-1	20.8	7:28:23	7389404.46	953577.19	3.1		
1223	DR-2	18.9	7:32:48	7389910.82	953678.72	7.5	12.0	
<u>Tidal Stage</u>	DR-2R1	17.4	7:32:52	7389919.25	953678.38	7.0	12.0	
Flood	DR-4	20.7	7:34:21	7390536.64	954024.93	17.0		
Dredge State:	DR-4R1	20.4	7:34:25	7390536.64	954024.93	13.4		
Overflow through skimmers only	DR-3	20.3	7:36:29	7389078.29	953760.50	3.1		
Weather:								
Clear								
Wind:								
5-10 kts								
<u>Seas:</u> 0-1'								
<b>Disposal location</b>								
Columbia River RM 17.5 & 18.8								
Remarks:				Action Taken:				
DR-2 exceeded 10% over backg	round, taken in the	e plume.		Re-test DR-2R1 wa	as taken.			
DR-4 exceeded 10% over backg	round, taken in the	e plume.		Re-test DR-4R1 was taken.				
DR-3 taken out of plume on stark	oard side.							
				The dredge moved	away from the are	a while continuing dr	edging to avoid	
				further increasing t	he turbidity at the lo	ocation where the ex	ceedence was	
				measured. The dre	edge coordinates w	ere marked on the G	SPS screen to	
				insure no further dr	edging occurred at	the location where t	he exceedence	
				was measured.				
Sample Point Key	<b>All Tests Cond</b>	ucted With Y	SI 6600			Turbidity Compliance	DO Compliance	
DR-1	Background - 1	00' Up Curren	t, Within 600	-Foot of Channel				
DR-2	100' Down Current				OR	OR, WA		
DR-3	300' Radially fro	300' Radially from point of dredge (Port or Starboard)				WA	Not Required	
DR-4	900' Down Curr	900' Down Current from point of dredging				WA	Not Required	
Rx	Indicates a Re-	Test where (x)	is the Re-Te	est number for that pa	articular point			

Project Name/Location: Contract Number: W9127N-05-C-0012

## Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/10/2005

Disposal	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
<u>Load Number</u>	DSP-1	20.4	8:21:21	7378958.28	947534.84	3.0	
1223	DSP-2	17.7	8:26:30	7379559.55	947680.97	6.8	12.0
<u>Tidal Stage</u>	DSP-2R1	18.1	8:26:34	7379559.55	947680.97	5.7	12.0
Flood	DSP-4	20.3	8:27:45	7380016.19	947905.93	3.0	
<b>Dredge State:</b>	DSP-3	19.4	8:29:32	7378381.73	947059.24	20.5	
Split Hull	DSP-3R1	19.0	8:29:36	7378381.73	947059.24	15.4	
Weather:							
Clear							
<u>Wind:</u>							
10-15 kts							
<u>Seas:</u>							
0-1'							
<b>Disposal location</b>							
Columbia River RM 17.5 & 18.8							

Remarks:	Action Taken:
DSP-2 exceeded 10% over background, taken in the plume.	Re-test DSP-2R1 was taken.
DSP-4 taken in the plume.	
DSP-3 exceeded 10% over background, taken out of the plume,	Re-test DSP-3R1 was taken.
on port side.	The disposal ended and the dredge moved away from the area.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DSP-1	Background - 100' Up Current, Within 600-Foot of Channel		
DSP-2	100' Down Current	OR	OR, WA
DSP-3	150' Radially from point of dredge (Port or Starboard)	WA	Not Required
DSP-4	900' Down Current from point of dredging	WA	Not Required
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

						Number: W9127N-05-C-0012		
Columbia River Cha	annel Impre	<u>ovement</u>	- RM 20+1	0 to 21+20				
Date: 11/10/20	05							
Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)	
Load Number	DR-1	20.6	9:04:17	7388377.22	953009.75	3.7		
1224	DR-2	21.2	9:06:41	7387556.73	952653.11	14.2	12.0	
<u>Tidal Stage</u>	DR-2R1	21.0	9:06:44	7387556.49	952647.04	13.8	12.0	
Flood	DR-4	20.2	9:08:25	7386815.04	952579.28	17.8		
Dredge State:	DR-4R1	20.1	9:08:28	7386815.28	952585.35	14.6		
Overelland the manuals alcinome and ambi-	DR-3	20.0	9:12:03	7388133.64	953147.20	18.7		
Overflow through skimmers only	DR-3R1	19.7	9:12:06	7388129.67	953153.44	14.8		
Weather:								
Clear								
Wind:								
10-15 kts								
Seas:								
1-3'								
Disposal location								
Columbia River RM 17.5 & 18.8								
Remarks:	•			Action Taken:				
DR-2 exceeded 10% over backgr	ound, taken in the	plume.		Re-test DR-2R1 wa	as taken.			
DR-4 exceeded 10% over backgr	ound, taken in the	plume.		Re-test DR-4R1 was taken.				
DR-3 exceeded 10% over background	ound, taken out of	plume,		Re-test DR-3R1 was taken.				
on port side.		•		The dredge moved	l away from the are	a while continuing o	Iredging to	
				avoid further increa	asing the turbidity a	t the location where	the	
				exceedence was m	neasured. The dred	dge coordinates wer	e marked on	
				the GPS screen to	insure no further d	redging occurred at	the location	
				where the exceede	ence was measured	d.		
Sample Point Key	All Tests Condu	ucted With YS	SI 6600			Turbidity Compliance	DO Compliance	
DR-1	Background - 10	0' Up Current,	Within 600-F	oot of Channel				
DR-2	100' Down Curre	ent				OR	OR, WA	
DR-3	300' Radially from point of dredge (Port or Starboard)					WA	Not Required	
DR-4	900' Down Current from point of dredging					WA	Not Required	
Rx	Indicates a Re-T	est where (x)	is the Re-Tes	t number for that par	ticular point			
	1	( )		<u>'</u>	'			

Project Name/Location: Contract Number: W9127N-05-C-0012

## Columbia River Channel Improvement - RM 20+10 to 21+20

Date: 11/10/2005

Disposal	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)
Load Number	DSP-1	20.3	9:48:03	7379500.96	947798.91	3.0	
1224	DSP-2	19.7	9:51:55	7379520.02	947852.89	18.6	12.0
<u>Tidal Stage</u>	DSP-2R1	19.3	9:51:59	7379511.59	947853.23	14.7	12.0
Ebb	DSP-3	19.7	9:53:05	7378854.17	947466.04	3.1	
<b>Dredge State:</b>	DSP-4	20.3	9:55:01	7379254.92	947875.73	17.3	
Split Hull	DSP-4R1	20.2	9:55:05	7379250.71	947875.90	13.0	
Weather:							
Clear							
<u>Wind:</u>							
10-15 kts							
<u>Seas:</u>							
1-3'							
<b>Disposal location</b>							
Columbia River RM 17.5 & 18.8							

Remarks:	Action Taken:
DSP-2 exceeded 10% over background, taken in the plume.	Re-test DSP-2R1 was taken.
DSP-4 exceeded 10% over background, taken in the plume.	Re-test DSP-4R1 was taken.
DSP-3 taken out of the plume on port side.	
	The disposal ended and the dredge moved away from the area.

Sample Point Key	All Tests Conducted With YSI 6600	Turbidity Compliance	DO Compliance
DSP-1	Background - 100' Up Current, Within 600-Foot of Channel		
DSP-2	100' Down Current	OR	OR, WA
DSP-3	150' Radially from point of dredge (Port or Starboard)	WA	Not Required
DSP-4	900' Down Current from point of dredging	WA	Not Required
Rx	Indicates a Re-Test where (x) is the Re-Test number for that particular point		

						lumber: W9127N-05-	-C-0012	
Columbia River Cha	nnel Impr	<u>ovemen</u>	<u>t</u> - RM 20+	10 to 21+20				
Date: 11/10/200	5							
Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)	
Load Number	DR-1	20.8	10:37:03	7387970.92	952983.35	3.3		
1225	DR-2	19.0	10:38:38	7387470.01	952595.73	12.6	12.1	
<u>Tidal Stage</u>	DR-2R1	18.7	10:38:44	7387470.01	952595.73	11.8	12.0	
Ebb	DR-4	20.9	10:40:35	7386678.90	952341.38	13.1		
Dredge State:	DR-4R1	20.8	10:40:38	7386670.23	952335.64	12.7		
Overflow through skimmers only	DR-3	19.8	10:44:17	7387985.89	953147.00	17.4		
Overnow unough skinimers only	DR-3R1	19.8	10:44:21	7387981.43	953141.10	13.9		
<u>Weather:</u>								
Cloudy								
<u>Wind:</u>								
10-15 kts								
<u>Seas:</u>								
1-3'								
Disposal location								
Columbia River RM 17.5 & 18.8								
Remarks:				Action Taken:				
DR-2 exceeded 10% over backgro				Re-test DR-2R1 wa				
DR-4 exceeded 10% over backgro	· ·			Re-test DR-4R1 was taken.				
DR-3 exceeded 10% over backgro	ound, taken out o	f plume,		Re-test DR-3R1 was taken.				
on starboard side.						a while continuing dr		
Tests taken out if preferred order to	o ensure all tests	were comple	eted.			ocation where the ex		
					· ·	ere marked on the G		
					edging occurred at	the location where t	he exceedence	
				was measured.				
·	All Tests Cond					Turbidity Compliance	DO Compliance	
DR-1			t, Within 600-	Foot of Channel				
DR-2	100' Down Current				OR	OR, WA		
DR-3	300' Radially from point of dredge (Port or Starboard)				WA	Not Required		
DR-4	900' Down Current from point of dredging					WA	Not Required	
Rx	Indicates a Re-	Test where (x)	is the Re-Te	st number for that pa	articular point			

Date: 11/10/2005	5 Sample Point		<u>t</u> - RM 20+	10 to 21+20				
Dredging	Sample Point							
	•	D (1 (6))						
Lood Niveshor		Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)	
Load Number	DR-1	21.1	11:45:43	7387046.84	952040.78	3.5		
1226	DR-2	19.0	11:49:12	7386422.50	951840.61	9.8	11.8	
<u>Tidal Stage</u>	DR-2R1	18.7	11:49:16	7386418.29	951840.78	9.3	12.0	
Ebb	DR-4	20.2	11:50:48	7385831.48	951523.55	20.9		
Dredge State:	DR-4R1	20.6	11:50:52	7385822.81	951517.81	16.0		
Overflow through skimmers only	DR-3	20.1	11:52:34	7386998.39	951884.55	17.2		
Overnow unrough skinliners only	DR-3R1	20.5	11:52:38	7386994.18	951884.72	13.7		
Weather:								
Cloudy								
Wind:								
1 <del>0-15 kts</del>								
Seas:								
1-3'								
Disposal location								
Columbia River RM 17.5 & 18.8								
Remarks:				Action Taken:				
DR-2 exceeded 10% over backgro	und, taken in the	plume.		Re-test DR-2R1 wa	as taken.			
DR-4 exceeded 10% over backgro	und, taken in the	plume.		Re-test DR-4R1 was taken.				
DR-3 exceeded 10% over backgro	und, taken out o	f plume,		Re-test DR-3R1 was taken.				
on starboard side.				The dredge moved	away from the area	a while continuing dr	edging to avoid	
				further increasing tl	he turbidity at the lo	ocation where the ex-	ceedence was	
I				measured. The dre	edge coordinates w	ere marked on the G	PS screen to	
I				insure no further dr	edging occurred at	the location where the	ne exceedence	
I				was measured.				
Sample Point Key	All Tests Cond	ucted With Y	'SI 6600			Turbidity Compliance	DO Compliance	
DR-1	Background - 10	00' Up Curren	t, Within 600-	Foot of Channel				
DR-2	100' Down Curr	ent				OR	OR, WA	
DR-3	300' Radially from point of dredge (Port or Starboard)				WA	Not Required		
DR-4	900' Down Current from point of dredging				WA	Not Required		
Rx	Indicates a Re-	Test where (x)	is the Re-Te	st number for that pa	rticular point			

Contract Number: W9127N-05-C-0012 Columbia River Channel Improvement - RM 19+00 to 20+10 Date: 11/10/2005 Dredging Sample Point Depth (ft) Time X Coordinate Y Coordinate **Turbidity (NTU)** DO (Mq/L) 13:39:36 7383000.89 **Load Number** DR-1 20.0 949471.16 3.9 DR-3 1227 20.8 13:41:25 7382265.64 949561.48 5.1 DR-3R1 20.8 13:41:29 7382257.21 949561.82 5.2 Tidal Stage Ebb DR-2 14:02:11 7381290.49 21.2 12.0 19.1 948724.62 DR-2R1 **Dredge State:** 18.7 14:02:16 7381281.82 948718.89 21.8 11.9 DR-4 19.8 14:03:42 7380594.64 948430.17 19.5 Overflow through skimmers only DR-4R1 20.1 14:03:47 7380594.64 948430.17 15.6 Weather: Rain Wind: 10-15 kts Seas: 1-3' **Disposal location** Columbia River RM 17.5 & 18.8 Remarks: Action Taken: DR-2 exceeded 10% over background, taken in the plume. Re-test DR-2R1 was taken. DR-4 exceeded 10% over background, taken in the plume. Re-test DR-4R1 was taken. DR-3 exceeded 10% over background, taken out of plume, Re-test DR-3R1 was taken. on starboard side. The dredge moved away from the area while continuing dredging to avoid Dredge turned after samples DR-1 and DR-3. Testing continued after further increasing the turbidity at the location where the exceedence was dredge turned and resumed dredging. measured. The dredge coordinates were marked on the GPS screen to insure no further dredging occurred at the location where the exceedence was measured. Sample Point Key All Tests Conducted With YSI 6600 **Turbidity Compliance** DO Compliance DR-1 Background - 100' Up Current, Within 600-Foot of Channel DR-2 100' Down Current OR OR. WA DR-3 300' Radially from point of dredge (Port or Starboard) WA Not Required DR-4 900' Down Current from point of dredging Not Required WA Indicates a Re-Test where (x) is the Re-Test number for that particular point Rx

Project Name/Location:

						umber: W9127N-05-C-0012		
Columbia River Cha	<u>ınnel Impr</u>	<u>ovemen</u>	<u>t</u> - RM 20+	10 to 21+20				
Date: 11/10/200	5							
Dredging	Sample Point	Depth (ft)	Time	X Coordinate	Y Coordinate	Turbidity (NTU)	DO (Mg/L)	
Load Number	DR-1	20.0	15:47:42	7390249.73	954346.58	5.4		
1228	DR-3	20.6	15:50:59	7389302.27	953873.25	21.7	11.6	
<u>Tidal Stage</u>	DR-3R1	20.8	15:51:04	7389302.03	953867.18	16.4	11.7	
Flood	DR-2	20.2	15:52:51	7389582.92	953606.59	13.1		
<b>Dredge State:</b>	DR-2R1	20.5	15:52:55	7389582.92	953606.59	10.2		
Overflow through skimmers only	DR-4	21.4	15:56:40	7388850.02	953222.09	29.2		
Overnow unough skinnings only	DR-4R1	21.3	15:56:44	7388845.56	953216.18	22.9		
Weather:								
Overcast								
<u>Wind:</u>								
10-15 kts								
<u>Seas:</u>								
1-3'								
Disposal location								
Columbia River RM 17.5 & 18.8								
Remarks:				Action Taken:				
DR-2 exceeded 10% over background	ound, taken in the	plume.		Re-test DR-2R1 wa	as taken.			
DR-4 exceeded 10% over background	ound, taken in the	plume.		Re-test DR-4R1 was taken.				
DR-3 exceeded 10% over background	ound, taken out o	f plume,		Re-test DR-3R1 was taken.				
on port side.				The dredge moved	away from the are	a while continuing dr	edging to avoid	
				further increasing t	he turbidity at the lo	ocation where the ex	ceedence was	
				measured. The dre	edge coordinates w	ere marked on the G	SPS screen to	
				insure no further dr	edging occurred at	the location where t	he exceedence	
				was measured.				
Sample Point Key	<b>All Tests Cond</b>	ucted With Y	'SI 6600			Turbidity Compliance	DO Compliance	
DR-1			t, Within 600-	Foot of Channel				
DR-2	100' Down Current				OR	OR, WA		
DR-3	300' Radially from point of dredge (Port or Starboard)				WA	Not Required		
DR-4	900' Down Current from point of dredging					WA	Not Required	
Rx	Indicates a Re-	Test where (x)	is the Re-Te	st number for that pa	articular point			